

ABSTRACT

**Manufacturing Test for a
Fault Tolerant Magnetoresistive
Solid-state Storage Device**



A fault-tolerant magnetoresistive solid-state storage
10 device (MRAM) in use performs error correction coding and
decoding of stored information, to tolerate physical
defects. At manufacture, the MRAM device is tested to
confirm that each set of storage cells is suitable for
storing ECC encoded data, using either a parametric
15 evaluation (step 602), or a logical evaluation (step 603)
or preferably a combination of both. Failed cells are
identified and a count is formed, suitably in terms of ECC
symbols 206 that would be affected by such failed cells
(step 604). The count can be compared to a threshold
20 (step 605) to determine suitability of the accessed
storage cells and a decision made (step 606) on whether to
continue with use of those cells, or whether to take
remedial action.

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[Figure 6]